CS5760 - Human Computer Interaction & Usability Testing

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Application name: MI Herp Atlas Mobile App

Evaluation Assignment 5 – Heuristic Evaluation

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App Description

Description: MI Herp Atlas Mobile (Android) App is an application for recording observations of Amphibians (frogs, toads, and salamanders) and reptiles (turtles, snakes, and lizards) in Michigan to know the population change for conversation purposes. This will be used by citizens from all age groups to record observations and upload a photo directly from their phone even without the internet connection and the data will get synced when connected to the internet. One of the benefits of this application is it has real time accessibility which helps to keep the data up to date which helps to make conservation strategies and be used for educational purposes and to raise awareness about the endangered species to the local people.

User Interface (UI) Domain

The main purpose of the application is to record observations from public and use the data for research and conservation of the endangered species. The app is only capable of recording own observations. For more observations and information, the users will have to user the website. The UI domain can be identified as "Data Entry and Management with elements of Search and Location Awareness.".

Heuristic Usability Priinciples

Visibility of System Status
There is a presence of light/dark mode switch option as per user preferences. The is also map in the observation recording age which gives users a sense of where they are and a potential to choose a location.

Match Between the System and the Real World
The use of frog image used in the recording page gives user a sense of what exactly is app is about and what the purpose is. The page also makes it easy for the user to record "age" and "location" which aligns with the real-world actions.

User Control and Freedom
The logout option in drop down menu and in the homepage provides user control. The "add another animal" option in animal entry allows flexibility in the observation entry for different animal details.

Consistency and Standards
Navigation bar appears for all the pages and the use of icons for every action shows consistency. The use of description box for additional information is also one of the positives.

Error Prevention

The required fields ensures that the data is complete.

Recognition Rather than Recall
The icons for every action used gives users a sense of recognition that they have seen on the other apps as well and the labels are also clear and concise.

Flexibility and Efficiency of Use
Even if the animal is not seen properly, there are multiple options to record observations like uploading an audio file and writing a description.

Aesthetic and Minimalist Design
The overall design is clean, and the color choice gives a sense of an animal app.

Help Users Recognize, Diagnose, and Recover from Errors
The presence of "HELP" and FAQs are the positives.

Potential Usability Problems

1) There is a duplicated light/dark mode toggle switch in the navigation bar as well as on the screen with a "bulb" icon. The bulb icon creates confusion and redundancy. The similar bulb icon is used for FAQs and HELP on the last screen.

2) The purpose of the question mark right on the login page and homepage is unclear. The question mark icon adds an unnecessary element without clear purpose.

3) The use of icon on the for "upload image" and "New file" is not aligned. For one it is one the left side and for other it is on the right side. There shows an inconsistency.

4) It's unclear if users can edit or delete existing records.

5) The "upload all" and "upload automatically" options might lack user control over individual uploads and can lead to accidental data loss.

6) There is no option to record audio directly on the app. It only has an option to upload recorded files. If the user must record an audio he will have to rely on inbuilt mobile app or will have to download an audio recorded leading to frustration for the user.

7) There is no option to directly "Submit" the observations.

Critical Usability Concerns

Information Overload and Missing Clarity

- The brief description field lacks guidance on what information to include. Provide placeholder text or examples to help users understand the expected input. It also should have a recording audio option.
- It is also unsure if there is "not sure" or "other" option available under the "group" and "species" that are marked mandatory. Users might feel frustrated or unsure if they don't find it.

Inconsistent Terminology
- Several data entry screens lack the ability to undo mistakes or abandon entries without saving. This can lead to frustration and lost data for users.
- The lack of a "submit" button, where advanced details are entered, creates confusion. Users might hesitate to save their record without a clear confirmation step.

Missing Functionality
- Page 5 mentions "upload all" and "upload automatically," but the process and options for uploading recorded data are unclear. Users might be unsure how to proceed with sharing their findings.
- The search option on the navigation bar lacks context and guidance. It's unclear what users can search for and how the search function operates.